REVISON A

EFFECTIVE DATE: June 7, 2004

EXPIRATION DATE: June 7, 2009

MARSHALL WORK INSTRUCTION

ED01

DEVIATION AND WAIVER PROCESS, MSFC PROGRAMS/PROJECTS

| Marshall Work Instruction | | |
|---------------------------|--------------------|-------------|
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| Deviation and Waiver | MWI 8040.3 | Revision: A |
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DOCUMENT HISTORY LOG

| Status (Baseline/ | | | |
|----------------------|----------|-----------|--|
| Revision/ | Document | Effective | |
| Canceled) | Revision | Date | Description |
| Baseline | | 5/14/99 | Document converted from MSFC-P04.2-C04 to a Directive. Previous history retained in system as part of canceled or superseded ISO Document files. Document revised to incorporate the merging of the Quality Management System documents into the Marshall Management Directives System. [Footer URL updated 01/14/2004 by Directives Manager.] |
| Revision | А | 6/7/2004 | Revise Document to update the effective date and expiration date. Paragraph 4. Removed "quality" from "quality record." Other minor edits as needed. |
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1. PURPOSE

This Marshall Work Instruction (MWI) establishes the method for generating, processing, and implementing deviations and waivers to specified requirements for Program or Project hardware or software configuration items within the Marshall Management Manual scope in compliance with the requirements of MPG 8730.3, MPG 8040.1, and MWI 8040.2.

2. APPLICABILITY

This instruction is applicable to all personnel who perform onsite generation and processing of deviations and waivers.

3. APPLICABLE DOCUMENTS

- a. MPD 1280.1, "Marshall Management Manual"
- b. MPG 8040.1, "Configuration Management, MSFC Programs/Projects"
- c. MWI 8040.2, "Configuration Control, MSFC Programs/ Projects"
- d. MPG 8730.3, "Control of Nonconforming Product"
- e. MWI 8730.3, "MSFC Material Review System"

4. REFERENCES

None

5. DEFINITIONS

- 5.1 Classification of Nonconforming Characteristics.
- 5.1.1 <u>Critical Characteristic</u>. A critical characteristic is one that analysis indicates is likely, if defective, to create or increase a hazard to human safety, or to result in failure of a system or major product to perform a required mission.
- 5.1.2 <u>Major Characteristic</u>. A major characteristic is one that analysis indicates is not critical but is likely, if defective, to result in failure of an end item to perform a required mission.

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- 5.1.3 <u>Minor Characteristic</u>. A minor characteristic is one that analysis indicates is significant to product quality but is not likely, if defective, to impair the mission performance of the part or item.
- 5.2 <u>Configuration Control Board (CCB)</u>. The functional body responsible for establishing baselines and the review and disposition of all changes, deviations, and waivers to these baselines.
- 5.3 <u>Configuration Control Board Directive (CCBD)</u>. The Directive, MSFC Form 2312, approved by the CCB Chair, dispositions an engineering change, specifies each action, actionee, and due date required to implement the change, and indicates concurrence/nonconcurrence of each CCB member.
- 5.4 <u>Configuration Item (CI)</u>. An aggregate of hardware, firmware, software, or any of its discrete portions, which satisfies an end-use function and is designated for configuration management. A CI can be identified as a Hardware Configuration Item (HWCI) or a Computer Software Configuration Item (CSCI).
- 5.5 <u>Deviation</u>. A specific written authorization, granted prior to the manufacture of an item, to depart from a particular requirement(s) of an item's current approved configuration for a specific number of units or a specified period of time.
- 5.6 <u>Deviation/Waiver Approval Request (DAR)</u>. MSFC Form 847 used to request the approval of a deviation or waiver.
- 5.7 <u>Discrepancy Record (DR)</u>. The record of a hardware/software nonconformance. Dispositions to accomplish required remedial actions are recorded on the Record Copy of MSFC Form 460 (Copy 1).
- 5.8 <u>Firmware</u>. The combination of a hardware device and computer instruction and/or computer data that resides as read-only software in the hardware device.
- 5.9 Test Discrepancy Record (TDR). The record of problems/anomalies occurring during test operations and the engineering dispositions required to perform problem investigation, isolation, and troubleshooting and to accomplish remedial actions. Dispositions to accomplish required remedial actions are recorded on the Record Copy of MSFC Form 460 (Copy 1).

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5.10 <u>Waiver</u>. A written authorization to accept an item, after manufacture, or after being submitted for Government inspection or acceptance, found to depart from specified requirements(s), but nevertheless is considered suitable for use "as is" or after repair by an approved method.

6. INSTRUCTIONS

- 6.1 <u>Deviation</u>. Authorization for departure from any requirements that is identified before the item has been produced will be processed as a deviation in accordance with the requirements contained herein. The deviation is generated to authorize a limited departure from a baselined requirement(s) when it is not appropriate to change the requirement(s) for all future products.
- 6.2 <u>Waiver</u>. When an item does not conform to applicable drawings, specifications, tests, or other requirements, a DR (MSFC Form 460) is generated documenting the nonconformance per MPG 8730.3. If the specified requirements should not be changed, and the nonconformance is not a minor characteristic that can be processed through the Material Review Board (MRB) as stated in MWI 8730.3, the nonconformance shall be processed as a waiver in accordance with the requirements contained herein and in MWI 8040.2. The need for processing a waiver is normally identified as a result of a DR being generated during the inspection or test of a product, during receiving inspecting or test of a procured item, or generated by a contractor to obtain permission for the acceptance of nonconforming products. Needs may be identified by other means.
- 6.3 <u>In-house DAR Preparation and Processing</u>. MSFC Form 847, Deviation/Waiver Approval Request (DAR), and the preparation instructions are located in the MSFC electronic forms database. The process and responsibilities for in-house DARs are as follows:

| Actionee | | Action |
|---------------|-------|---|
| | | |
| Anyone | 6.3.1 | May identify the need for a waiver or deviation. Prepares DAR (MSFC Form 847) and/or provides information to the lead engineer. |
| Lead Engineer | 6.3.2 | Verifies contents of the DAR or generates DAR; submits the DAR to the CCB secretariat for processing. |
| CCB | 6.3.3 | Processes the DAR in accordance with |

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| Secretariat | | MWI 8040.2. |
|-----------------------------------|-------|---|
| Engineer | 6.3.4 | Ensures that the approved DAR is implemented in accordance with the CCBD. |
| Manufacturing | 6.3.5 | Updates records to reflect the approved DAR. |
| Safety & Mission Assurance (S&MA) | 6.3.6 | Verifies that approved DAR is incorporated into the product and the as-built records reflect the DAR. |

6.4 <u>Contractor-Generated DAR Preparation and Processing</u>. The process and responsibilities for DARs generated by a contractor other than an in-house support contractor are as follows:

| Contractor | 6.4.1 | Generates DAR in accordance with contract requirements and submits to contracting officer. |
|-------------|-------|--|
| Contracting | 6.4.2 | Submits DAR to Program/Project CCB |
| Officer | | secretariat for processing. |
| CCB | 6.4.3 | Processes DAR in accordance with MWI |
| Secretariat | | 8040.2; issues CCBD and forwards to |
| | | contracting officer. |
| Contracting | 6.4.4 | Implements contract action in |
| Officer | | accordance with the CCBD. |
| Contractor | 6.4.5 | Implements requirements per contract |
| | | direction. |

7. NOTES

None

8. SAFETY PRECAUTIONS AND WARNING NOTES

None

9. RECORDS

The DAR is a record and shall be maintained and dispositioned in accordance with the requirements stated in the Program/Project Configuration Management Plan.

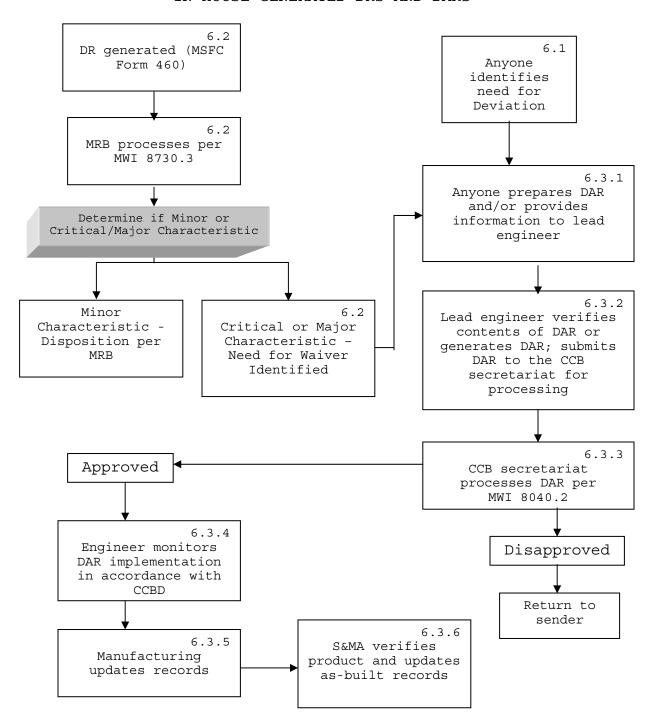
10. PERSONNEL TRAINING AND CERTIFICATION

None

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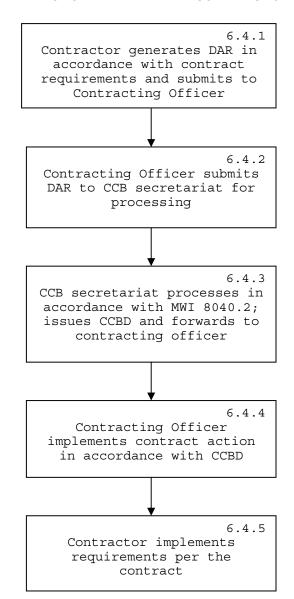
11. FLOW DIAGRAM

IN-HOUSE-GENERATED DRs AND DARS



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DARS GENERATED BY CONTRACTORS, OTHER THAN IN-HOUSE SUPPORT



12. CANCELLATION

MWI 8040.3 dated May 14, 1999

Original signed by Axel Roth for

David A. King Director